IN THE CLAIMS

Kindly amend claims 23 and 46 as shown in the following claim listing:

1-6. (Cancelled).

7. (Previously Amended) A data processing device comprising:

at least one input for receiving data including

viewer profile data; and

data regarding a television program;

a medium readable by the data processing device coupled to the input, said medium storing said viewer profile data; and

a processor, the processor being adapted to perform the following:

calculating a probability that the television program is a desired one; and

supplying a recommendation regarding the television program based on the probability,

wherein the processor maintains the viewer profile in accordance with a data structure comprising:

a list of feature values; and

for each element of the list, a respective number of times programs having that feature value were watched, and a respective

number of times programs having that feature value were not watched,

and wherein the processor is further arranged to perform the following, each time a user watches a new program,

first adding, to the list, feature values or counts of such feature values, associated with that new program;

selecting at least one companion program to the new program, the companion program being selected at random from a program schedule, which companion program has not been watched; and

second adding, to the list, feature values of the companion program, or counts of such feature values.

8. (Previously ) The data processing device of claim 7, wherein the processor is further arranged to perform the following, each time a user watches a new program: first adding, to the list, feature values or counts of such feature values, associated with that new program.

9. (Cancelled).

10. (Previously Amended) The data processing device of claim 7, wherein the input is a network connection.

11. (Previously Amended) The data processing device of claim 7, wherein calculating comprises using a Bayesian classifier.

12. (Original) The data processing device of claim 11, wherein the processor is further adapted to subject the viewer profile to a noise threshold calculation prior to using the Bayesian classifier.

13. (Previously Amended) A data processing device comprising:

at least one input for receiving data including

viewer profile data; and

data regarding a television program; and

a processor, the processor being adapted to perform the following:

calculating, using a Bayesian classifier, a probability that the television program is a desired one; and

supplying a recommendation regarding the television program based on the probability,

wherein the processor is further adapted to subject the viewer profile to a noise threshold calculation prior to using the Bayesian classifier,

and wherein

the viewer profile data comprises

a list of feature values;

a respective negative count for each element of the list, the negative count indicating a number of times programs having that feature value have not been watched;

a respective positive count for each element of the list, the positive count indicating a number of times programs having that feature value have been watched;

the noise threshold calculation comprises

selecting a sub-list comprising at least feature values having at least one specific type of feature;

choosing the highest negative count in the sub-list as the noise threshold;

the recommendation comprises a program selected from a group having at least one feature value having a positive or negative count in the viewer profile, which count exceeds the noise threshold.

14. (Previously Amended) A data processing device comprising:

at least one input for receiving data including

viewer profile data; and

data regarding a television program; and

a processor, the processor being adapted to perform the following:

calculating, using a Bayesian classifier, a probability that the television program is a desired one; and

supplying a recommendation regarding the television program based on the probability,

wherein the processor is further adapted to subject the viewer profile to a noise threshold calculation prior to using the Bayesian classifier,

and wherein subjecting the viewer profile to the noise threshold further comprises using observations gathered by a known random process to estimate a reasonable noise threshold.

15. (Original) The data processing device of claim 13, wherein the specific type comprises a day and time of day feature type.

16. (Original) The data processing device of claim 13, wherein the specific type comprises a station identification feature type.

17. (Previously Amended) The data processing device of claim 13, wherein the viewer profile data comprises a plurality of respective counts of programs watched, each respective count indicating how many programs watched had a respective feature.

18. (Original) The data processing device of claim 17, wherein calculating comprises calculating a probability that the television program is in a particular class.

19. (Previously Amended) The data processing device of claim 18, wherein the class is one of

programs the viewer is interested in, and

programs the viewer is not interested in.

20. (Previously Amended) A data processing device comprising:

at least one input for receiving data including

viewer profile data; and

data regarding a television program; and

a processor, the processor being adapted to perform the following:

calculating a probability that the television program is a desired one; and

supplying a recommendation regarding the television program based on the probability,

wherein calculating the probability comprises:

computing a prior possibility, of whether a program is desired or not;

computing a conditional probability of whether a feature fi will be present if a show is desired or not; and

computing a posterior probability of whether program is desired or not, based on the conditional probability and the prior probability.

21. (Previously Amended) The data processing device of claim 20, wherein it is assumed that programs watched are programs that the viewer is interested in.

22. (Previously Amended) The data processing device of claim 20, wherein the processor is further adapted to provide a recommendation regarding an additional item, other than a television program, based on the viewer profile.

23. (Currently Amended) A data processing device comprising:

at least one input for receiving data including

viewer profile data; and

data regarding a television program; and

a processor, the processor being adapted to perform the following:

calculating a probability that the television program is a desired one; and

supplying a recommendation regarding the television program based on the probability,

wherein the processor is further adapted to occasionally recommend to every viewer a surprise show that has relatively few features in common with watched shows and not watched shows.

24. (Previously Amended) A data processing device comprising:

at least one input for receiving data including

viewer profile data; and

data regarding a television program; and

a processor, the processor being adapted to perform the following:

calculating a probability that the television program is a desired one; and

supplying a recommendation regarding the television program based on the probability,

wherein

the viewer profile comprises a list of features types and values for such feature types;

the feature types are selected from at least two sets, including

a first set of feature types whose values are deemed non-independent; and

a second set of feature types whose values are deemed independent; and

calculating a probability comprises

applying a Bayesian classifier calculation corresponding to feature types from the second set; and

applying a modified Bayesian classifier calculation corresponding to feature types from the first set.

25. (Previously Amended) The data processing device of claim 24, wherein

with respect to features of the first set, the modified Bayesian classifier calculation considers only feature values that match with a show being classified.

26-30. (Cancelled).

31. (Previously Amended) At least one medium readable by a data processing device and embodying software arranged to perform the following operations:

calculating a probability that a television program is a desired one, based on a viewer profile and data regarding the television program; and

supplying a recommendation regarding the television program based on the probability,

wherein the at least one medium further embodies the viewer profile, the viewer profile being embodied as a data structure comprising:

a list of feature values; and

for each element of the list, a respective number of times programs having that feature value were watched,

and wherein the software is further arranged to perform the following, each time a user watches a new program,

first adding, to the list, feature values or counts of such feature values, associated with that new program;

selecting at least one companion program to the new program, the companion program being selected at random from a program schedule, which companion program has not been watched; and

second adding, to the list, feature values of the companion program, or counts of such feature values.

32. (Previously Amended) The at least one medium of claim 31, wherein the software is further arranged to perform the following, each time a user watches a new program: first adding, to the list, feature values or counts of such feature values, associated with that new program.

33. (Previously Amended) The at least one medium of claim 31, wherein the at least one medium embodies the data regarding the television program.

34. (Previously Amended) The at least one medium of claim 31, wherein calculating comprises using a Bayesian classifier.

35. (Original) The at least one medium of claim 34, wherein the software is further adapted to subject the viewer profile to a noise threshold calculation prior to using the Bayesian classifier.

36. (Previously Amended) At least one medium readable by a data processing device and embodying software arranged to perform the following operations:

calculating, using a Bayesian classifier, a probability that a television program is a desired one, based on a viewer profile and data regarding the television program; and

supplying a recommendation regarding the television program based on the probability,

wherein the software is further adapted to subject the viewer profile to a noise threshold calculation prior to using the Bayesian classifier,

and wherein

the viewer profile data comprises

a list of feature values;

a respective negative count for each element of the list, the negative count indicating a number of times programs having that feature value have not been watched;

a respective positive count for each element of the list, the positive count indicating a number of times programs having that feature value have been watched;

the noise threshold calculation comprises

selecting a sub-list comprising at least feature values having at least one specific type of feature;

choosing the highest negative count in the sub-list as the noise threshold;

the recommendation comprises a program selected from a group having at least one feature value having a positive or negative count in the viewer profile exceeding the noise threshold.

37. (Previously Amended) At least one medium readable by a data processing device and embodying software arranged to perform the following operations:

calculating, using a Bayesian classifier, a probability that a television program is a desired one, based on a viewer profile and data regarding the television program; and

supplying a recommendation regarding the television program based on the probability,

wherein the software is further adapted to subject the viewer profile to a noise threshold calculation prior to using the Bayesian classifier,
and wherein subjecting the viewer profile to the noise threshold further comprises using observations gathered by a known random process to estimate a reasonable noise threshold.

38. (Original) The at least one medium of claim 36, wherein the specific type comprises a day and time of day feature type.

39. (Original) The at least one medium of claim 36, wherein the specific type comprises a station identification feature type.

40. (Previously Amended) The at least one medium of claim 36, wherein the viewer profile data comprises a plurality of respective counts of programs watched, each respective count indicating how many programs watched had a respective feature.

41. (Original) The at least one medium of claim 40, wherein calculating comprises calculating a probability that the television program is in a particular class.

42. (Original) The at least one medium of claim 40, wherein the class comprises at least one of programs the viewer is interested in and programs the viewer is not interested in.

43. (Previously Amended) At least one medium readable by a data processing device and embodying software arranged to perform the following operations:

calculating a probability that a television program is a desired one, based on a viewer profile and data regarding the television program; and

supplying a recommendation regarding the television program based on the probability,

wherein calculating the probability comprises:

computing a prior possibility, of whether a program is desired or not;

computing a conditional probability of whether a feature fi will be present if a show is desired; and

computing a posterior probability of whether program is desired or not, based on the conditional probability and the prior probability.

44. (Previously Amended) The at least one medium of claim 43, wherein it is assumed that programs watched are programs that the viewer is interested in.

45. (Previously Amended) The at least one medium of claim 43, wherein the software is further arranged to provide a recommendation regarding an additional item, other than a television program, based on the viewer profile.

46. (Currently Amended) At least one medium readable by a data processing device and embodying software arranged to perform the following operations:

calculating a probability that a television program is a desired one, based on a viewer profile and data regarding the television program; and

supplying a recommendation regarding the television program based on the probability,

wherein the software is further arranged to occasionally recommend to every viewer a surprise show that has relatively few features in common with watched [show] shows and not watched shows.

47. (Previously Amended) At least one medium readable by a data processing device and embodying software arranged to perform the following operations:

calculating a probability that a television program is a desired one, based on a viewer profile and data regarding the television program; and

supplying a recommendation regarding the television program based on the probability,

wherein

the viewer profile comprises a list of features types and values for such feature types;

the feature types are selected from at least two sets, including

a first set of feature types whose values are deemed non-independent; and

a second set of feature types whose values are deemed independent; and

calculating a probability comprises

applying a Bayesian classifier calculation corresponding to feature types from the second set; and

applying a modified Bayesian classifier calculation corresponding to feature types from the first set.

48. (Original) The at least one medium of claim 47, wherein with respect to features of the first set, the modified Bayesian classifier calculation considers only values that match with a show being classified.

49-50. (Cancelled).

51. (Previously Amended) A data processing method comprising performing the following operations in a data processing device:

first receiving data reflecting physical observations, which data includes a list of feature values and observations about feature values, some of which feature values are independent and some of which are not;

second receiving data about an item to be classified, the data about the item to be classified including feature values;

maintaining a division of the data reflecting physical observations into at least two sets, including

a first set including those feature values which are deemed not independent; and

a second set including those feature values which are deemed independent;

performing a probabilistic calculation on the data reflecting physical observations and the data regarding an item to be classified including:

applying a Bayesian classifier calculation with respect to feature values relating to the second set; and

applying a modified Bayesian classifier calculation with respect to feature values relating to the first set

presenting a conclusion regarding the item to be classified to a user based on the probabilistic calculation.

52. (Original) The method of claim 51, wherein the modified Bayesian classifier calculation comprises ignoring feature values from the data reflecting physical observations when those feature values are not present in the data regarding the item to be classified.